

Onobrychis micrantha Schrenk, a newly recorded species of Leguminosae from China

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Abstract *Onobrychis micrantha* Schrenk (Leguminosae) is reported as a new record to China. As a result, *Onobrychis* includes four species in China. A key to the four species is given.

Key words *Onobrychis*, *Onobrychis micrantha*, new record, Xinjiang, China.

In the course of collecting plants of Leguminosae in Xinjiang from May to June in 2004, we discovered a small annual herbaceous plant belonging to *Onobrychis* Mill., which has been identified as *O. micrantha* Schrenk, and represents a new record to China.

Onobrychis micrantha Schrenk in Fisch. & Mey., Enum. Pl. Nov. I: 85. 1841; A. A. Gross. in Kom., Fl. URSS 13: 328, t. 14, fig. 5. 1948; Semiotr. in Pavl., Fl. Kazakhst. 5: 443, t. 54, fig. 4. 1961; S. I. Ali in Nasir & Ali., Fl. W. Pakist. 100: 328, fig. 46, A–G. 1977.

小花红豆草 新拟

Plants annual, up to 15–35 cm high. Stems erect, branched from the base or nearly simple, densely covered with white spreading hairs. Stipule membranaceous, subulate, densely white hairy. Leaves different in size; the lower ones 1.5–2 cm long, with petioles ca. 1–1.5 cm, leaflets 1–2 pairs, ovate-oblong, 6 mm long, 3 mm wide; the middle and upper ones up to 10–11 cm long, with petioles ca. 2.5–3.5 cm, leaflets 5–7 pairs, linear-lanceolate, densely covered with spreading hairs on abaxial surface, glabrous and brown speckled on adaxial surface except for along margins, 1.5–2.5 cm long, 2–4 mm wide, apex acute, base narrowly cuneate. Racemes up to 20–30 cm in fruit, 2–2.5 times longer than leaves. Pedicels ca. 20–27 cm, loosely 5–8-flowered. Calyx campanulate, 2.5–3.5 mm long, densely hairy, with linear-subulate teeth as long as or 1.5–2 times longer than calyx tube. Corolla reddish yellow; standard glabrous, oblong-ovate, 5–6 mm long, 2.5 mm wide, apex retuse or rounded; wings oblong, apex acuminate, shortly clawed, 4 mm long, 1 mm wide; keels oblong, apex obtuse, shortly clawed, 5–6 mm long, 2 mm wide. Fruit semi-orbicular, 11–15 mm long, with reticulate ridges on surface, 1-locular with 1 seed, spinulose on the margin and ridges, densely adpressed hairy. Seeds brown, ovoid-rounded, 4 mm long, 2.5 mm wide. Fl. Apr.–May; fr. May–Jul.

China. Xinjiang (新疆): Huocheng (霍城), Khorgos (霍尔果斯), Hongkazi (红卡子), 44°17.244' N, 80°24.741' E, alt. 975 m, on foot of gravelly hill, 2004-05-15, Z. Y. Chang et al. (常朝阳等) 2004217 (WUK).

Distribution: Afghanistan, Kazakhstan, Iran and Pakistan. New record to China (Xinjiang).

Onobrychis micrantha is very similar to *O. pulchella* Schrenk, which was first recorded from China by Wu (1988), but differs by having separate spines on fruit. Thus, the genus *Onobrychis* has included so far four species in China, with three wild ones and a cultivated one (Zhang & Xu, 1998). They are keyed out as follows:

Key to the Chinese species of *Onobrychis*

- 1. Annual.
 - 2. Spines of fruit connate into translucent membranaceous margins; calyx 4 mm long; leaflets 25–30 mm long 1. *O. pulchella*
 - 2. Spines of fruit distinct or separate; calyx 2.5–3.5 mm long; leaflets 10–20 mm long 2. *O. micrantha*
- 1. Perennial.
 - 3. Wild plant; racemes without tufty hairs before flowering.....3. *O. tanaitica*
 - 3. Cultivated plant; racemes covered with tufty hairs before flowering4. *O. viciifolia*

Onobrychis, with ca. 120 species worldwide, is a genus distributed mainly in northern Africa, western and central Asia, and Europe. Among the four species in China, *O. tanaitica* Spreng is widely distributed in Xinjiang, while *O. pulchella* and *O. micrantha* have been only known from one population in China, with central Asia, Afghanistan and Iran as their primary diversity center. *Onobrychis viciifolia* Scop., a species native in Europe, has been widely cultivated in China as a forage plant in northern and northwestern China.

Onobrychis micrantha grows on shady slope of a gravelly hill near the border area between China and Kazakhstan. It occurs as a companion species in mountain steppe, in which the dominant species are *Stipa capillata* L. and *Bothriochloa ischaemum* (L.) Keng, mixed with species of *Astragalus* L., *Oxytropis* DC., *Artemisia* L. and *Potentilla* L. *Caragana kirghisorum* Pojark. is the only shrub occurring in the community.

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中国豆科植物一新记录种——小花红豆草

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摘要 报道了小花红豆草*Onobrychis micrantha* Schrenk在中国新疆的分布。该种的分布区以往仅在中亚的哈萨克斯坦、巴基斯坦等地以及阿富汗和伊朗有记载。它与美丽红豆草*O. pulchella* Schrenk接近，区别在于前者荚果的刺分离，而后者荚果的刺彼此结合成膜质透明的隔膜。至此，中国红豆草属*Onobrychis*的种类已达4种，包括3个野生种和1个引进栽培种。给出了4种植物的检索表。
关键词 红豆草属；小花红豆草；新记录；新疆；中国